

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. **(Currently Amended)** In a data storage system that stores both database records and data other than database records, a[A] method for processing a request from a host to write a database record, as distinct from data other than a database record, to a target location on a logical device associated with a data-storage system in data communication with the host, the logical device having certain extents that have been designated for storage of database records and certain other extents that have been designated for storage of data other than database records, the method comprising:

maintaining, at the data storage system, information for distinguishing between [identifying] extents of the logical device that are designated for storage of database records and extents of the logical device that are designated for storage of data other than database records; and

on the basis of the information, determining

that the target location is on an extent that is designated for storage of a database record, and

that the target location is not on an extent that is designated for storage of data other than database records

whereby the database record is written only to an extent that is designated for storage of a database record, and

whereby the database record is not written to an extent that is designated for storage of data other than a database record.

~~[whether the target location is one on which a database record is permitted to be stored.]~~

2. **(Currently Amended)** The method of claim 1, wherein maintaining information for distinguishing between extents designated for storage of database records and extents designated for storage of data other than database records ~~[identifying extents]~~ comprises maintaining an extent table having extent table entries identifying properties associated with the extent,

wherein the properties depend at least in part on whether the extent is designated for storage of a database record and not designated for storage of data other than a database record.
3. **(Currently Amended)** The method of claim 2, further comprising selecting the properties to include information identifying a set of data verification steps to be carried out when data is written into the extent,

wherein the data verification steps depend on whether the extent is designated for storage of database records or for storage of data other than database records.
4. **(Currently Amended)** The method of claim 1, further comprising identifying the logical device to be a logical device designated for storage of database records and not a logical device designated for storage of data other than database records ~~[on which database records are to be written]~~.
5. **(Original)** The method of claim 1, further comprising identifying a set of data verification steps to be carried out in connection with writing data to an extent

wherein the set of data verification steps depends on whether the extent is designated for storage of database records or for storage of data other than database records.

6. **(Currently Amended)** The method of claim 5, further comprising carrying out the data verification steps,

wherein the data verification steps depend on whether the extent is designated for storage of database records or for storage of data other than database records.

7. **(Currently Amended)** The method of claim 1, wherein determining whether the target location is on an extent that is designated for storage of a database record and that the target location is not on an extent that is designated for storage of data other than database records [~~one on which a database record is permitted to be stored~~] comprises determining that the target location is contained completely within an extent, wherein a target location that is not contained completely within an extent is indicative of a target location being on an extent that is designated for storage of data other than database records.

8. **(Currently Amended)** The method of claim 3, wherein determining that the target location is on an extent that is designated for storage of a database record, and that the target location is not on an extent that is designated for storage of data other than database records [~~whether the target location is one on which a database record is permitted to be stored~~] comprises determining that the target location is contained completely within one or more extents, all of which share the same data verification steps.

9. **(Currently Amended)** A method of processing an I/O request to access a storage device having a plurality of extents defined thereon, each of the extents having a corresponding set of processing instructions associated therewith, the method comprising:

receiving an I/O request having an associated target location on the storage device;

identifying an extent set associated with the target location, the extent set having at least ~~[one extent]~~ a first extent and a second extent, each of the first and second extents having its own associated processing instructions;

determining that execution of the processing instructions for a first extent does not preclude execution of processing instructions for the second extent; ~~[associated with all of the extents within the extent set can be executed];~~

executing the I/O transaction; ~~[and]~~

executing the processing instructions associated with the first extent; ~~and [consistent with the extent set associated with the target location]~~

executing the processing instructions associated with the second extent.

10. **(Original)** The method of claim 9, wherein receiving an I/O request comprises receiving a write request.
11. **(Currently Amended)** The method of claim 10, further comprising selecting the processing instructions to ~~[be]~~ include instructions for verifying that the writing of the data to the target location was carried out successfully.
12. **(Currently Amended)** The method of claim 9, wherein determining that execution of the processing instructions for a first extent does not preclude execution of processing instructions for the second extent~~[determining that the processing instructions associated with all of the extents within the extent set can be executed]~~ comprises determining that none of the extents associated with the target location overlap with each other.

13. (Currently Amended) The method of claim 9, wherein [~~determining that the processing instructions associated with all of the extents within the extent set can be executed~~] determining that execution of the processing instructions for a first extent does not preclude execution of processing instructions for the second extent comprises determining that the first and second [~~target location includes overlapping~~] extents overlap, and that the processing instructions associated with the overlapping first and second extents are compatible.

14. (Currently Amended) A data-storage system comprising:

a logical device having a plurality of extents defined thereon, each of the extents having a corresponding set of processing instructions associated therewith,

the logical device having

a first extent having an associated first set of processing instructions, and

a second extent having an associated second set of processing instructions;

wherein the first set of processing instructions includes instructions that are different from instructions in the second set of processing instructions; and

information identifying each extent on the logical device and the processing instructions associated with that extent.

15. (Original) The system of claim 14, wherein the information identifying each extent comprises an extent table having an extent table entry corresponding to an extent on the logical device.

16. (Currently Amended) A computer-readable medium having encoded thereon software for causing a data storage system that stores both database records and

data other than database records to process [processing] a request from a host to write a database record to a target location on a logical device associated with a data-storage system in data communication with the host, the logical device having certain extents that have been designated for storage of database records and certain other extents that have been designated for storage of data other than database records, the software comprising instructions that, when executed, cause a computer to:

maintain, at the data storage system, information for distinguishing between [identifying] extents of the logical device that are designated for storage of database records and extents of the logical device that are designated for storage of data other than database records; and

on the basis of the information, determine

that the target location is on an extent that is designated for storage of a database record, and

that the target location is not on an extent that is designated for storage of data other than database records

whereby the database record is written only to an extent that is designated for storage of a database record, and

whereby the database record is not written to an extent that is designated for storage of data other than a database record.

[whether the target location is one on which a database record is permitted to be stored.]

17. **(Currently Amended)** A computer-readable medium having encoded thereon software for processing an I/O request to access a storage device having a plurality of extents defined thereon, each of the extents having a corresponding set of processing instructions associated therewith, the software including instructions that, when executed, cause a computer to:

receive an I/O request having an associated target location on the storage device;

identify an extent set associated with the target location, the extent set having at least ~~[one extent]~~ a first extent and a second extent, each of the first and second extents having its own associated processing instructions;

determine that execution of the processing instructions for a first extent does not preclude execution of processing instructions for the second extent; ~~[associated with all of the extents within the extent set can be executed;]~~

~~[executing]~~ execute the I/O transaction; ~~[and]~~

execute the processing instructions associated with the first extent; and
~~[consistent with the extent set associated with the target location.]~~

execute the processing instructions associated with the second extent.